

Notice of Allowability

Application No.

10/645,240

Examiner

Huan Hoang

Applicant(s)

BOZANO ET AL.

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed on 03/28/05.
2. ☒ The allowed claim(s) is/are 1-36 and 38-40 (original claims 1-7,9-37 and 39-41).
3. ☒ The drawings filed on 22 August 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

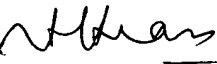
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 082203
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


Huan Hoang
Primary Examiner
Art Unit 2827

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the claims:

Claim 4, line 2, before "layer of charge transporting material", replace "the" with --a--.

Claim 5, line 2, before "layer of charge transporting material", replace "the" with --a--.

Claim 6, line 2, before "layer of charge transporting material", replace "the" with --a--.

Claim 7, line 2, before "layer of charge transporting material", replace "the" with --a--.

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Claim 8 does not exist in this application.

Misnumbered claims 9-41 have been renumbered as claims 8-40.

Applicant's election of Group I, claims 1-36 (original claims 1-7, and 9-37) and 38-40 (original claims 39-41) in the reply filed on 03/28/05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the

Art Unit: 2827

restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

This application is in condition for allowance except for the presence of claim 37 to an invention non-elected without traverse. Accordingly, claim 37 has been cancelled.

Cancel claim 37 (original claim 38).

2. The following is an examiner's statement of reasons for allowance:

Claims 1-36 and 38-40 recite a non-volatile multi-stable memory device, a bistable switching element, a memory system comprised of an array of non-volatile multi-stable memory devices, a switching system comprised of an array of multi-stable switching elements, a method of using a non-volatile multi-stable memory device and a logical device.

The prior art does not teach or suggest the following limitations recited in independent claims 1, 27, 32, 33, 39 and 41:

a composite medium disposed between and in contact with the first and second electrodes;

wherein the composite medium comprises a layer of discrete charge trapping particles so that an electrical resistance measured across the first and second electrodes is selectively variable between a lower resistance R_{on} and a higher resistance R_{off} ;

wherein R_{on} is selected by applying a turn-on potential V_{on} between the first and second electrodes;

wherein R_{off} is selected by applying a turn-off potential V_{off} between the first and second electrodes;

wherein the absolute value of the turn-off potential, $|V_{off}|$, is greater than the absolute value of the turn-on potential, $|V_{on}|$; and

wherein the turn-off potential, V_{off} and the turn-on potential, V_{on} have the same polarity.

Therefore, the application is condition for allowance.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan Hoang whose telephone number is (571) 272-1779. The examiner can normally be reached on Mon-Fri 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai Ho can be reached on (571) 272-1777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2827

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Huan Hoang
Primary Examiner
Art Unit 2827

HH
8/29/05